

CLAIMS

1. A method for preparing platelet-rich plasma, comprising a step of agglutinating and sedimenting red blood cells in a selective and accelerative manner from blood.
2. The method for preparing platelet-rich plasma according to claim 1, wherein the blood is whole blood obtained by blood collection.
3. The method for preparing according to claim 1 or 2, wherein the method of agglutinating and sedimenting red blood cells in a selective and accelerative manner comprises a step of adding a water-soluble polymer compound to the blood.
4. A method for preparing platelet-rich plasma, comprising a step of adding a water-soluble polymer compound to blood.
5. The method for preparing according to claim 3 or 4, wherein the water-soluble polymer compound is a polymer compound having a molecular weight of 1,000 - 5,000,000.
6. The method for preparing according to claim 3 or 4, wherein the water-soluble polymer compound is added in an amount of 0.0001 - 10 w/v% with respect to a blood volume.
7. The method for preparing according to claim 3 or 4, wherein the water-soluble polymer compound is at least one kind selected from the following compounds:
 - 1) a polyamino acid comprising amino acids and/or pharmacologically acceptable salts of amino acids;
 - 2) an acidic polysaccharide and/or pharmacologically

acceptable salts of these; and

3) a vinyl polymer.

8. The method for preparing according to claim 7, wherein the polyamino acid is at least one kind selected from the group consisting of polyglutamic acid, polyaspartic acid, polyhistidine and polyasparagine.

9. The method for preparing according to the foregoing 7, wherein the amino acids and/or pharmacologically acceptable salts, which are formed polyamino acid, are selected from the group consisting of glutamic acid, aspartic acid, histidine and asparagine, or pharmacologically acceptable salts of these.

10. The method for preparing according to claim 9, wherein at least 20% of the amino acids which the polyamino acid comprises is glutamic acid and/or aspartic acid, or pharmacologically acceptable salts thereof.

11. The method for preparing according to claim 9 or 10, wherein the polyamino acid is an acidic polyamino acid.

12. The method for preparing according to claim 7, wherein the acidic polysaccharide and/or pharmacologically acceptable salt thereof is at least one kind selected from the group consisting of dextran derivatives, glycosaminoglycan, cellulose derivatives, chitosan derivatives, galacturonic acid and alginic acid, or pharmacologically acceptable salts thereof.

13. The method for preparing according to claim 7, wherein

the acidic polysaccharide and/or pharmacologically acceptable salt thereof is hyaluronic acid or a pharmacologically acceptable salt thereof.

14. The method for preparing according to claim 7, wherein the vinyl polymer is at least one kind selected from compounds including an acidic polymer or a pharmacologically acceptable salt thereof.

15. A platelet-rich plasma prepared by the method according to any one of claim 1 - 14.

16. An accelerator of tissue and/or organ repair, which comprises the platelet-rich plasma according to claim 15.

17. An accelerator of tissue and/or organ repair, an additive for bone augmentation in the periphery of a dental implant, an additive for use when transplanting bone or artificial bone to a bone defect site, a wound healing accelerator, an accelerator of tissue repair after therapy or treatment for plastic and/or cosmetic purposes, a therapeutic agent for dermatosis, a therapeutic agent for cutaneous ulcers, an agent for nerve tissue repair and/or an agent for postoperative tissue repair which comprise the platelet-rich plasma according to claim 15.

18. A therapeutic method or a treatment method for any of the following, which comprises a step of administering the platelet-rich plasma according to claim 15:

- 1) bone augmentation in the periphery of a dental implant;
- 2) dermatosis;

- 3) tissue repair for plastic and/or cosmetic purposes;
- 4) repair of a bone defect site;
- 5) nerve tissue repair; and
- 6) postoperative tissue repair.

19. A reagent or a reagent kit for preparing platelet-rich plasma that contains at least one kind of the components described below from among water-soluble polymer compounds used for preparing platelet-rich plasma by a method comprising a step of adding a water-soluble polymer compound to blood:

- 1) a polyamino acid comprising amino acids and/or pharmacologically acceptable salts of amino acids;
- 2) an acidic polysaccharide and/or pharmacologically acceptable salt thereof; and
- 3) a vinyl polymer.

20. An instrument for preparing platelet-rich plasma by adding at least one kind of the components of water-soluble polymer compounds described below to blood:

- 1) a polyamino acid comprising amino acids and/or pharmacologically acceptable salts of amino acids;
- 2) an acidic polysaccharide and/or pharmacologically acceptable salt thereof; and
- 3) a vinyl polymer.

21. A kit for preparing platelet-rich plasma, which comprises the reagent or the reagent kit according to claim 19 and the instrument according to claim 20.

